

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 4/26/2023 Revision date: 4/26/2023 Supersedes: 11/5/2020

SECTION 1: Identification	
1.1. Identification	
Product form Product name CAS-No. Product code Other means of identification	: Mixture : Rescocast 17EMG : Mixture : 0304 : Alumina-Silicate Cement Bonded Castable
1.2. Recommended use and restrictions on	
Use of the substance/mixture	: Refractory
Recommended use	: Industrial use
1.3. Supplier Resco Products, Inc. One Robinson Plaza, Suite 300 6600 Steubenville Pike Pittsburgh, PA, 15205 United States 412-494-4491 <u>SDS@RescoProducts.com</u> - <u>WWW.RescoProducts.</u>	<u>com</u>
1.4. Emergency telephone number	
Emergency number	: EMERGENCY ONLY (CHEMTREC) USA & Canada 1-800-424-9300 Outside USA & Canada +1 703-741-5970
SECTION 2: Hazard(s) identification	
2.1. Classification of the substance or mixt	
GHS US classification	
Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2B Carcinogenicity Category 1A Full text of H statements : see section 16	H315Causes skin irritationH320Causes eye irritationH350May cause cancer (Inhalation)
2.2. GHS Label elements, including precaut	tionary statements
GHS US labeling Hazard pictograms (GHS US) Signal word (GHS US)	: Danger
Hazard statements (GHS US) Precautionary statements (GHS US)	 banger H315 - Causes skin irritation H320 - Causes eye irritation H350 - May cause cancer (Inhalation) P280 - Wear eye protection, Dust respirator, protective gloves. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P260 - Do not breathe dust.
2.3. Other hazards which do not result in cl	assification
No additional information available	
2.4. Unknown acute toxicity (GHS US)	
No additional information available	
SECTION 3: Composition/Information	on ingreatents
3.1. Substances	
Not applicable	
3.2. Mixtures	
Name Calcium Aluminate Cement	Product identifier%GHS US classificationCAS-No.: 65997-16-220 – 50Skin Irrit. 2, H315 Eye Irrit. 2B, H320
cristobalite	CAS-No.: 14464-46-1 10 – 20 Carc. 1A, H350
aluminium oxide, non-fibrous quartz	CAS-No.: 1344-28-1 5 – 10 Not classified CAS-No.: 14808-60-7 0.1 – 0.5 Carc. 1A, H350

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Full text of hazard classes and H-statements : see set	ction 16
SECTION 4: First-aid measures	
4.1. Description of first aid measures	
	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
	 Allow affected person to breathe fresh air. Allow the victim to rest. Gently wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effects (a	
	: Based on available data, the classification criteria are not met.
symptoms Symptoms/effects after inhalation	: May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after eye contact	: Causes skin irritation. : Causes eye irritation.
4.3. Immediate medical attention and specia	I treatment, if necessary
No additional information available	
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguishing	media
	 Use extinguishing media appropriate for surrounding fire. In case of fire, all extinguishing media allowed.
5.2. Specific hazards arising from the chemi	
	: Not flammable.
5.3. Special protective equipment and preca	· · · · · · · · · · · · · · · · · · ·
	: Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting SECTION 6: Accidental release measure	: Do not enter fire area without proper protective equipment, including respiratory protection.
6.1. Personal precautions, protective equipn	nent and emergency procedures
6.1.2. For emergency responders	: Do not breathe dust. Avoid contact with skin and eyes.
Protective equipment Emergency procedures	 Equip cleanup crew with proper protection. Ventilate area. On land, sweep or shovel into suitable containers.
6.2. Environmental precautions	
Prevent entry to sewers and public waters.	
6.3. Methods and material for containment a	nd cleaning up
Methods for cleaning up	: On land, sweep or shovel into suitable containers. Minimize generation of dust.
6.4. Reference to other sections	
See Heading 8. Exposure controls and personal prote	ection.
SECTION 7: Handling and storage	
7.1. Precautions for safe handling Precautions for safe handling	. Do not handle uptil all cafety pressutions have been read and understand. Avoid relater duct
Ű	 Do not handle until all safety precautions have been read and understood. Avoid raising dust. Avoid contact with skin and eyes. Do not breathe dust. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2. Conditions for safe storage, including a	
Storage conditions	: Store this product in a dry location where it can be protected from the elements.
	: Strong bases. Strong acids.
SECTION 8: Exposure controls/persona	I protection
8.1. Control parameters	
Rescocast 17EMG (Mixture)	
No additional information available	

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Calcium Aluminate Cement (65997-16-2)				
No additional information available				
cristobalite (14464-46-1)				
USA - ACGIH - Occupational Exposure Limits				
CGIH OEL TWA 0.025 mg/m ³ respirable dust				
USA - OSHA - Occupational Exposure Limits				
OSHA PEL (TWA) [1]	0.05 mg/m ³ respirable dust			
aluminium oxide, non-fibrous (1344-28-1)				
USA - ACGIH - Occupational Exposure Limits				
ACGIH OEL TWA	1 mg/m ³ respirable dust			
quartz (14808-60-7)				
USA - ACGIH - Occupational Exposure Limits				
ACGIH OEL TWA	0.025 mg/m ³ (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction)			
USA - OSHA - Occupational Exposure Limits				
Local name	Silica, crystalline quartz, respirable dust			
OSHA PEL (TWA) [1]	0.05 mg/m ³ respirable dust			
Remark (OSHA)	(3) See Table Z-3.			
8.2. Appropriate engineering controls				
Appropriate engineering controls : 8.3. Individual protection measures/Personal Personal protective equipment: Avoid all unnecessary exposure.	Provide adequate ventilation to minimize dust concentrations. protective equipment			
Hand protection:				
Wear protective gloves.				
Eye protection:				
Chemical goggles or safety glasses				
Skin and body protection:				
Wear suitable protective clothing				
Respiratory protection:				
Wear appropriate mask				
Other information: Do not eat, drink or smoke during use.				
SECTION 9: Physical and chemical prope				
9.1. Information on basic physical and chemic				
Appearance :	Solid Granular mixture.			
	Gray earthy			
Odor threshold :	No data available			
pH : Melting point :	No data available > 2500 °F			
Freezing point :	No data available No data available			
Boiling point : Flash point :	No data available			
Relative evaporation rate (butyl acetate=1):Flammability (solid, gas):Vapor pressure:	No data available Non flammable. No data available			

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Relative density:Solubility:Partition coefficient n-octanol/water (Log Pow):Auto-ignition temperature:Decomposition temperature:Viscosity, kinematic:Viscosity, dynamic:Explosion limits:Explosive properties:	No data available ≈ 1.8 Slightly soluble in water. No data available No data available Not Applicable No data available No data available No data available No data available No data available
9.2. Other information	
No additional information available	
SECTION 10: Stability and reactivity	
10.1. Reactivity	
Hydraulic setting.	
10.2. Chemical stability	
Stable under normal conditions of use.	
10.3. Possibility of hazardous reactions	
Not established.	
10.4. Conditions to avoid	
Avoid dust formation.	
10.5. Incompatible materials	
Strong acids. Strong bases.	
10.6. Hazardous decomposition products	
No additional information available	
SECTION 11: Toxicological information	
11.1. Information on toxicological effects	
Acute toxicity (dermal) :	Not classified Not classified
Acute toxicity (inhalation) :	Not classified
Acute toxicity (inhalation) : aluminium oxide, non-fibrous (1344-28-1)	Not classified
	Not classified > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
aluminium oxide, non-fibrous (1344-28-1)	> 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female,
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value,
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation : Calcium Aluminate Cement (65997-16-2)	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation.
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation calcium Aluminate Cement (65997-16-2) pH	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation.
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation calcium Aluminate Cement (65997-16-2) pH cristobalite (14464-46-1)	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation.
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aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation : Calcium Aluminate Cement (65997-16-2) pH cristobalite (14464-46-1) pH aluminium oxide, non-fibrous (1344-28-1)	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation. ≤ 13
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation : Calcium Aluminate Cement (65997-16-2) pH cristobalite (14464-46-1) pH aluminium oxide, non-fibrous (1344-28-1) pH	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation. ≤ 13
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation cristopalite (14464-46-1) pH aluminium oxide, non-fibrous (1344-28-1) pH quartz (14808-60-7) pH	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation. ≤ 13 6 - 7 9 - 10.5 (aqueous suspension, 33 %)
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation cristopalite (14464-46-1) pH aluminium oxide, non-fibrous (1344-28-1) pH quartz (14808-60-7) pH	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation. ≤ 13 6 - 7 9 - 10.5 (aqueous suspension, 33 %) 6 - 7
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation : Calcium Aluminate Cement (65997-16-2) pH cristobalite (14464-46-1) pH aluminium oxide, non-fibrous (1344-28-1) pH quartz (14808-60-7) pH Serious eye damage/irritation :	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation. ≤ 13 6 - 7 9 - 10.5 (aqueous suspension, 33 %) 6 - 7
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation cristobalite (14464-46-1) pH aluminium oxide, non-fibrous (1344-28-1) pH quartz (14808-60-7) pH Serious eye damage/irritation calcium Aluminate Cement (65997-16-2)	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation. ≤ 13 6 - 7 9 - 10.5 (aqueous suspension, 33 %) 6 - 7 Causes eye irritation.
aluminium oxide, non-fibrous (1344-28-1) LD50 oral rat LC50 Inhalation - Rat Skin corrosion/irritation : Calcium Aluminate Cement (65997-16-2) pH cristobalite (14464-46-1) pH aluminium oxide, non-fibrous (1344-28-1) pH quartz (14808-60-7) pH Serious eye damage/irritation : Calcium Aluminate Cement (65997-16-2) pH	 > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) Causes skin irritation. ≤ 13 6 - 7 9 - 10.5 (aqueous suspension, 33 %) 6 - 7 Causes eye irritation.

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aluminium oxide, non-fibrous (1344-28-1)				
H 9 – 10.5 (aqueous suspension, 33 %)				
quartz (14808-60-7)				
рН	6 – 7			
Respiratory or skin sensitization	: Not classified			
Germ cell mutagenicity Carcinogenicity	Not classified Aay cause cancer (Inhalation).			
quartz (14808-60-7)				
IARC group	1 - Carcinogenic to humans			
Reproductive toxicity	: Not classified			
STOT-single exposure	: Not classified			
STOT-repeated exposure Aspiration hazard	: Not classified : Not classified			
Viscosity, kinematic	: Not Applicable			
aluminium oxide, non-fibrous (1344-28-1)				
Viscosity, kinematic	Not applicable (solid)			
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.			
Symptoms/effects after inhalation	: May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure			
Symptoms/effects after skin contact	through inhalation. : Causes skin irritation.			
Symptoms/effects after eye contact	: Causes eye irritation.			
SECTION 12: Ecological information				
12.1. Toxicity				
aluminium oxide, non-fibrous (1344-28-1)				
LC50 - Fish [1]	> 100 mg/l (96 h, Salmo trutta, Literature study)			
EC50 - Crustacea [1]	> 100 mg/l (48 h, Daphnia magna, Literature study)			
12.2. Persistence and degradability				
Rescocast 17EMG (Mixture)				
Persistence and degradability Not established.				
cristobalite (14464-46-1)				
Persistence and degradability	Mineral. Not applicable.			
Chemical oxygen demand (COD)	Not applicable			
ThOD	Not applicable			
BOD (% of ThOD)	Not applicable			
aluminium oxide, non-fibrous (1344-28-1)				
Persistence and degradability	Not applicable.			
Chemical oxygen demand (COD)	Not applicable			
ThOD	Not applicable			
quartz (14808-60-7)				
Persistence and degradability	Not applicable.			
Biochemical oxygen demand (BOD)	Not applicable			
Chemical oxygen demand (COD)	Not applicable			
ThOD	Not applicable			

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12.3. Bioaccumulative pote	ential				
Rescocast 17EMG (Mixture)					
Bioaccumulative potential	oaccumulative potential Not established.				
cristobalite (14464-46-1)					
Bioaccumulative potential		No data available.			
aluminium oxide, non-fibrous (1344-28-1)					
Bioaccumulative potential No data available.					
quartz (14808-60-7)					
Bioaccumulative potential No data available.					
12.4. Mobility in soil					
cristobalite (14464-46-1)					
Ecology - soil		No data available.			
aluminium oxide, non-fibr	ous (1344-28-1)				
Surface tension		No data available in the literature			
Ecology - soil		No data available.			
12.5. Other adverse effects					
Effect on the global warming		None known			
SECTION 13: Disposal of	considerations				
13.1. Disposal methods Product/Packaging disposal reco	ommendations :	Dispose in a safe manner in accordance with local/national regulations.			
Ecology - waste materials : Avoid release to the environment.					
SECTION 14: Transport information					
In accordance with DOT / TDG / IMDG / IATA Department of Transportation (DOT)					
In accordance with DOT					
Not regulated Transportation of Dangerous Goods					
Not regulated Transport by sea					
Not regulated					
Air transport Not regulated					
	v information				
15.1. US Federal regulation	SECTION 15: Regulatory information				
All components of this product a		s Active on the United States Environmental Protection Agency Toxic Substances Control Act			
(TSCA) inventory					
aluminium oxide, non-fibr	aluminium oxide, non-fibrous (1344-28-1)				
Not subject to reporting require					
Note: The section 313 chemical list contains "CAS # 1344-28-1 Aluminum Oxide (Fibrous forms)"; the Aluminum oxide contained in this product is non-fibrous, and thus is not a section 313 material. Only manufacturing, processing, or otherwise use of aluminum oxide in the fibrous form triggers reporting.					
	15.2. International regulations				
CANADA Calcium Aluminate Cement (65997-16-2)					
Listed on the Canadian DSL (D		t)			
cristobalite (14464-46-1)					
Listed on the Canadian DSL (Domestic Substances List)					
aluminium oxide, non-fibr	ous (1344-28-1)				
Listed on the Canadian DSL (D		t)			

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EU-Regulations

No additional information available

National regulations		
quartz (14808-60-7)		
Listed on IARC (International Agency for Research on Cancer)		
15.3. US State regulations		
Rescocast 17EMG (Mixture)		
U.S California - Proposition 65 - Other information This product contains crystalline silica, a chemical known to the state of California to cause cancer. For more information go to WWW.P65Warnings.ca.gov		

cristobalite (14464-46-1)				
U.S California - Proposition 65 - Carcinogens List	Proposition 65 -	Proposition 65 -		Maximum allowable dose level (MADL)
Yes	No	No	No	

quartz (14808-60-7)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		

Component	State or local regulations		
Cristobalite (14464-46-1)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous		
	Substance List; U.S Pennsylvania - RTK (Right to Know) List		
aluminium oxide, non-fibrous (1344-28-1)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous		
	Substance List; U.S Pennsylvania - RTK (Right to Know) List		
Quartz (14808-60-7)	U.S New Jersey - Right to Know Hazardous Substance List		
SECTION 16: Other information			
according to Federal Register / Vol. 77, No. 58	/ Monday, March 26, 2012 / Rules and Regulations		
Revision date	4/26/2023		
Other information	: Report language name. English. In the event of any conflict between English and other language versions, the English version shall prevail.		
Full text of H-phrases			
H315 Causes skin irritation			

H315	Causes skin irritation
11010	Causes skin initiation
H320	
H320	Causes eye irritation
11050	
H350	May cause cancer
Orfelix Data Oh	eet (SDS), USA
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